

MARKED-UP COPY OF AMENDED CLAIMS:

1. (Amended) A semiconductor body containing a semiconductor structure and comprising:

the semiconductor body defining an isolation trench having a bottom and sidewalls and having an upper portion and a lower portions, ~~and encircling said isolation trench enclosing an area of the semiconductor body which contains a semiconductor structure which is to be electrically isolated from other semiconductor structures that are also contained within the semiconductor body but which are not located within the encircled-enclosed area;~~

the lower portion of the isolation trench being at least partly filled with an electrically conductive material that has sidewall portions thereof which are at least partly separate from the sidewalls of the lower portion of the isolation trench by a first electrical insulator, ~~and that has said electrically conductive material having a lower portion that is in electrical contact with the semiconductor body at the bottom of said isolation trench;~~ and

the upper portion of the isolation trench being filled with a second electrical insulator.

REMARKS

Reconsideration and allowance of this application is respectfully requested. Claims 3-20 are withdrawn. Claims 1-2 remain in this application and, as amended herein, are submitted for the Examiner's consideration.

In the Office Action, the Examiner maintained the restriction requirement set out in the Office Action dated March 23, 2001 and made the requirement final. Applicants therefore elect the claims of Group I (claims 1 and 2) *without* traverse.

The Examiner also rejected claims 1-2 under 35 U.S.C. § 112, first paragraph. Claim 1 has been amended to correct the informalities.

Claim 1 was also rejected under 35 U.S.C. § 112, second paragraph. The claim has been amended to correct the informalities.

It is therefore submitted that the claims are in compliance with the requirements of 35 U.S.C. § 112.

Turning to the art rejections, claims 1-2 were rejected under 35 U.S.C. § 102(e) as being anticipated by Wada (U.S. Patent No. 6,274,919 B1). It is submitted, however, that the claims are patentably distinguishable over Wada.

The Wada reference shows, in Fig. 2C, a trench 12 in which a SiO₂ insulator film 23 is present along the sidewalls *and along the bottom* of the trench and in which *the remainder of* the trench is filled with a polycrystalline silicon deposit 24. (See column 4, line 59 to column 5, line 12). The insulator film 23 covers the bottom of the trench 12 and thereby *electrically isolates* the polycrystalline silicon 24 from the substrate 7 and *prevents* electrical contact with the semiconductor body.

It follows that Wada does not suggest:

the lower portion of the isolation trench being at least partly filled with an electrically conductive material that has sidewall portions which are at least partly separate from the sidewalls of the lower portion of the isolation trench by a first electrical insulator, said electrically conductive material having a lower portion that is in electrical contact with the semiconductor body at the bottom of said isolation trench

as called for in claim 1

The polycrystalline silicon 24 "fills the entire cavity space of the trenches 12" (column 4, lines 65-66), and thus the upper portion of the trench is *not* filled with a second electrical insulator.

Wada does not suggest:

the upper portion of the isolation trench being filled with a second electrical insulator.

as defined in claim 1.

Wada therefore does not suggest the combination defined in claim 1 and does not anticipate the claim.

Claim 2 depends from claim 1 and further defines and limits the invention set out in the dependent claim as well as calls for additional limitations. It follows that claim 2 likewise defines a combination that is patentably distinguishable over Wada.

Accordingly, the withdrawal of the rejection of claims 1-2 under 35 U.S.C. § 102 is respectfully requested.

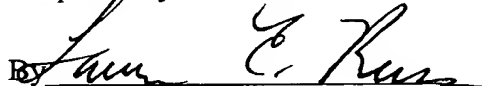
In view of the foregoing remarks and the amendments herein, it is submitted that the Examiner's restriction requirement has been met and that the rejection of the claims under 35 U.S.C. §§ 102 and 112 are overcome.

It is therefore submitted that this case is in condition for allowance and such action is respectfully requested. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: April 8, 2002

Respectfully submitted,


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